

1. (CANCEL).

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2. (AMENDED) A vending system for verifying the delivery of a ordered product, the system comprising:
an ordering system for receiving a customer order of a product;
a product delivery system for sending the product located in a first product storage position through a delivery path to a second product receiving position;
a monitoring system located along the delivery path for detecting when the product passes through the delivery path from the first position to the second position, the monitoring system optically scanning the delivery path for the product transition; and
a reporting circuitry electronically coupled to the monitoring system wherein the reporting circuitry reports the result of the customer order.

3. (AMENDED) The vending system of claim 2 wherein the monitoring system further comprises:

one or more light emitting source; and
one or more light detection source wherein the light detection source detects a change in a light from the light-emitting source.

4. (AMENDED) The vending system in claim 3 wherein the monitoring system further comprises:

an optical circuitry for optically monitoring the delivery path between the first product storage position and the second product receiving position; and
a logic circuit electronically coupled to the optical circuitry for determining whether the product passed through the delivery path, the determining occurring by receiving a first logic result when light is detected, and a second logic result when light is not detected.

5. The vending system in claim 3 wherein the light is an infrared light.

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6. (AMENDED) The vending system in claim 3 further comprising:

an optical detection aperture wherein the aperture is used to reduce the range of incident angles of light that may be detected by the one or more light detection source.

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7. (AMENDED) The vending system in claim 3 wherein the one or more light emitting source is aligned approximately across from the one or more light detection source, wherein the delivery path lies in between the one or more light emitting source and the one or more light detection source.

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8. (AMENDED) The vending system in claim 3 wherein the one or more light emitting source and the one or more light detection source is aligned such that the spacing between detectible beams accounts for the smallest product that transitions through the delivery path.

112 9. (AMENDED) The vending system in claim 3 wherein at least two light emitting sources and at least two detecting sources are used, the system further comprising:
a controller that sends a signal to a first one of the at least two light emitting sources activating and then deactivating the first one of at least two light emitting sources;
a set first time period wherein the signal is cycled by the controller to a next emitting source of at least two light emitting sources; and
a second time period wherein an emitter cycle is complete wherein the second time period is determined by a shortest delivery path travel time of a product.

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10. (AMENDED) The vending system in claim 3 wherein the power of the one or more light emitting source is adjusted to compensate for ambient light effects.

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11. (AMENDED) The vending system in claim 3 where in the power of the one or more light emitting source is adjusted to compensate for reflected light effects.

- A2
- ✓ 12. (AMENDED) The vending system in claim 4 wherein the logic circuitry further comprises:
- an input from the product delivery system;
 - an input from the optical circuitry; and
 - an output from a comparison circuit, whereby the output comprises of a resulting comparison between the input from the product delivery system and the input from the optical circuitry, wherein the resulting comparison determines if a delivery attempt by the product delivery system resulted in an actual delivery of the product to the receiving position.
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- ✓ 13. (AMENDED) The vending system in claim 2, wherein the reporting circuitry further comprises a data storage device for storing information concerning the customer order.
- ✓ 14. (AMENDED) The vending system in claim 2, wherein the reporting circuitry further comprises a logic circuit for determining whether to offer another vend attempt to the customer based upon a comparison between the result and a predetermined rule.
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15. The vending system in claim 13 wherein the reporting circuitry further comprises a display device wherein an operator can retrieve the information.
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- ✓ 16. (AMENDED) A vending method for determining whether a product is delivered, the method comprising the steps of:
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- sending a delivery signal to a product delivery system based on a customer ordering event;
 - monitoring a delivery path that the ordered product travels to reach a product receiving location with a monitoring system located along the delivery path for detecting when the product passes through the delivery path, the monitoring system optically scanning the delivery path for the product transition; and
 - determining if the product was delivered to the receiving location.

- ✓ 17. The method of claim 16 wherein the monitoring further comprises the steps of:
transmitting a signal from one or more signal emitting devices;
monitoring to receive the signal at one or more signal detection devices; and
determining whether an interruption of the signal occurred.

✓ 18. (AMENDED) The method of claim 17 wherein the step of transmitting the signal further comprises the steps of:

activating the one or more signal emitting device in a sequential series; and
activating the corresponding one or more signal detection device corresponding to the activated corresponding emitter.

✓ 19. (AMENDED) The method of claim 16 wherein the step of monitoring comprises using an infrared signal.

✓ 20. (AMENDED) The method of claim 16 further comprising the steps of:
attempting a redelivery of the product one or more predetermined number of attempts, wherein a first attempt to deliver the product failed; and
providing the customer one or more alternative choices if the redelivery attempt of the product failed after the one or more predetermined number of attempts.

✓ 21. (AMENDED) The method of claim 20 wherein the step of providing the customer with an alternative choice further comprises the steps of:

providing the customer alternatively with a first choice to request a second product; and

providing the customer alternatively with a second choice to request a refund associated with the customer ordering event.

✓ 22. (AMENDED) The method of claim 16 wherein the step of sending a delivery signal comprises the step of activating the monitoring system to monitor the delivery path.

✓ 23. (AMENDED) The method of claim 22 further comprising the step of deactivating the monitoring at the conclusion of the customer ordering event.

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= 24. (AMENDED) A vending machine method to deliver a product, the method comprising the steps of:
determining that a product ordered by a customer was not delivered;
counting the number of failed attempts to deliver the product ordered by the customer; and
taking an action based on the number of attempts that the product was ordered by the customer but not delivered.

25. (AMENDED) The method of claim 24, wherein the step of taking an action further comprises the steps of selectively preventing other orders from occurring for the product until a predetermined event when the number of attempts reaches a predetermined number and selectively disabling a monitoring system until a predetermined event when the number of attempts reaches a predetermined number..

26. (AMENDED) The method of claim 24, wherein the step of taking an action further comprises the step of offering a second product alternative.

27. (AMENDED) The method of claim 25 further comprising the step of re-enabling the vending machine to accept other orders after a predetermined time has lapsed.

28. (AMENDED) The method of claim 25 wherein the step of determining further comprises:

sending a delivery signal to a product delivery system based on a customer-ordering event;
monitoring a delivery path that the ordered product travels to reach a product receiving location; and
determining if the product was delivered to the receiving location.

29. The method of claim 28 wherein the step of monitoring further comprises the step of optically monitoring using an infrared signal.

30. (CANCEL)

31. (CANCEL)

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32. (CANCEL)

33. (CANCEL)

34. (NEW) The vending system of Claim 8 wherein the detectible beams comprise light emitted from one of the one or more light emitting source and detected by an aligned detector and two detectors adjacent to the aligned detector.

35. (NEW) The method of Claim 18 wherein the one or more signal detection device comprises:

a detection device aligned with a corresponding signal emitting device; and

two detection devices adjacent to the detection device aligned with the corresponding signal emitting device.

36. (NEW) The vending system of Claim 14 wherein delivery of all products is prevented if a product delivery is not detected.

37. (NEW) The vending system of Claim 14 wherein the delivery of a set of products is prevented if a product delivery is not detected.

38. (NEW) The method of Claim 20, the method further comprising the steps of: storing data associated with the customer ordering event and redelivery attempts.

39. (NEW) The method of Claim 24, the method further comprising the steps of: storing data associated with the steps of determining, counting, and taking.

40. (NEW) The method of Claim 24 wherein the action based on the number of attempts comprises preventing delivery of the product ordered by the customer.

41. (NEW) The method of Claim 24 wherein the action based on the number of attempts comprises preventing delivery of a set of products.

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42. (NEW) The method of Claim 24 wherein the action based on the number of attempts comprises offering a refund of the purchase price of the product ordered by the customer.

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43. (NEW) The method of Claim 24 wherein the action based on the number of attempts comprises selectively preventing delivery of one or more products until an action is taken by a service person and selectively disabling a monitoring system until an action is taken by a service person.

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44. (NEW) An apparatus for monitoring an operation of a vending machine, the apparatus comprising:

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- an ordering system for accepting customer orders;
 - a delivery path through which a product ordered by a customer from the ordering system travels;
 - a set of signal emitting devices located along the delivery path and sequentially emitting a signal;
 - a set of signal detecting devices located across the delivery path from the set of signal emitting devices, at least one signal detecting device of the set of signal detecting devices being aligned with a corresponding signal emitting device of the set of signal emitting devices, the at least one signal detecting device having at least one adjacent signal detecting device, the at least one signal detecting device and the at least one adjacent signal detecting device operable to receive the signal from the corresponding signal emitting device; and
 - a logic circuit connected to set of the signal detecting devices, the logic circuit determining whether a product is delivered along the delivery path from an output of the set of signal detecting devices.

Rule 1.121

Applicant hereby submits a copy of the marked claims as prescribed by 37 CFR § 1.121(c)(1)(i).

CONCLUSION

Applicants have now submitted a Preliminary Amendment in compliance with 37 CFR §1.115. Therefore, Applicants respectfully request that this amendment be entered.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 50-1343 of Hughes & Luce, LLP.

Respectfully submitted,

HUGHES & LUCE



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